AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-25 (Canceled).

Claim 26 (Currently amended): An isolated enzyme which has an activity to deamidate amido groups in a protein, wherein said enzyme is obtained from *Cytophagales* or *Actinomyces.*

Claim 27 (Currently amended): An isolated enzyme which has an activity to deamidate amido groups in a protein by directly acting upon the amido groups without cutting peptide bonds and without cross-linking a protein, wherein said enzyme is obtained from *Cytophagales* or *Actinomyces*.

Claim 28-30: (Canceled).

Claim 31 (Currently amended): A recombinant polypeptide having an action to deamidate amido groups in protein, which is obtained by culturing a transformant transformed with a recombinant vector, which contains a nucleotide selected from the group consisting of:

a) a nucleotide which encodes a polypeptide having an activity to deamidate amido groups in protein,

b) a nucleotide which encodes a polypeptide having an activity to deamidate amido groups in protein by directly acting upon the amido groups without cutting peptide bonds and

without cross-linking a protein,

c) a nucleotide which comprises a nucleotide being selected from the following nucleotides (i) to (iii) ~~(i) to (vii)~~ and encoding a polypeptide having an activity to deamidate amido groups in protein;

~~(i) a nucleotide which encode a polypeptide having the amino acid sequence of SEQ ID NO:6,~~

(i) ~~(ii)~~ a nucleotide which encodes a polypeptide having the amino acid sequence of SEQ ID NO:6, ~~wherein one or more amino acid residues of the amino acid sequence are modified by at least one of deletion, addition, insertion and substitution,~~

~~(iii) a nucleotide which has the nucleotide sequence of SEQ ID NO:5,~~

(ii) ~~(iv)~~ a nucleotide which has the homolgy of 80% or more with nucleotide sequence of SEQ ID NO:5, ~~wherein one or more bases of the nucleotide sequence are modified by at least one of deletion, addition, insertion and substitution,~~

~~(v) a nucleotide which hybridizes with any one of the aforementioned nucleotides (i) to (iv) under a stringent condition,~~

~~(vi) a nucleotide which has homology of 80% or more with any one of the aforementioned nucleotides (i) to (iv), and~~

(iii) ~~(vii)~~ a nucleotide which is degenerate with respect to any one of the aforementioned nucleotides (i) to (ii) ~~(i) to (vi)~~, and

d) a nucleotide which comprises a nucleotide encoding a polypeptide having the amino acid sequence SEQ ID NO:6, thereby allowing said transformant to produce an enzyme having

an activity to deamidate amido groups in protein, and subsequently collecting the enzyme having an activity to deamidate amido groups in protein from the culture mixture.

Claim 32 (Currently amended): A method for producing ~~a novel~~ an enzyme, which comprises culturing a microorganism in a nutrient medium, thereby allowing said microorganism to produce an enzyme having an activity to deamidate amido groups in protein, and subsequently collecting said enzyme, wherein the microorganism is *Cytophagales* or *Actinomyces*.

Claim 33 (Currently amended): A method for producing ~~a novel~~ an enzyme having an activity to deamidate amido groups in protein, which comprises culturing a microorganism in a nutrient medium, thereby allowing the microorganism to produce an enzyme which has an activity to deamidate amido groups in protein by directly acting upon the groups without causing severing of peptide bond and cross-linking of protein, and subsequently collecting said enzyme, wherein the microorganism is *Cytophagales* or *Actinomyces*.

Claim 34-35: (Canceled).

Claim 36 (Currently amended): ~~The method according to claim 32 or 33~~ A method for producing an enzyme, which comprises culturing a microorganism in a nutrient medium, thereby allowing said microorganism to produce an enzyme having an activity to deamidate amido groups in protein, and subsequently collecting said enzyme, wherein the microorganism belonging to the genus selected from the group consisting of *Chryseobacterium*, *Flavobacterium*, *Empedobacter*, *Sphingobacterium*, *Aureobacterium* and *Myroides*.

Claim 37 (Currently amended): ~~The method according to claim 32 or 33~~ A method

for producing an enzyme, which comprises culturing a microorganism in a nutrient medium, thereby allowing said microorganism to produce an enzyme having an activity to deamidate amido groups in protein, and subsequently collecting said enzyme, wherein the microorganism belonging to the genus *Chryseobacterium*.

Claim 38 (Currently amended): ~~The method according to claim 32 or 33~~ A method for producing an enzyme, which comprises culturing a microorganism in a nutrient medium, thereby allowing said microorganism to produce an enzyme having an activity to deamidate amido groups in protein, and subsequently collecting said enzyme, wherein the microorganism is a strain *Chryseobacterium sp.* No. 9670 (FERMBP-7351).

Claim 39 (Currently amended): A composition for use in modification of a protein or a peptide, which comprises an isolated enzyme having an activity to deamidate amido groups in protein or peptide by directly acting upon the groups without causing severing of peptide bond and cross-linking of protein, as the active ingredient, wherein said enzyme is obtained from *Cytophagales* or *Actinomvces*.

Claim 40 (New): An isolated enzyme which has an activity to deamidate amido groups in a protein, wherein said enzyme is obtained from *Flavobacteriaceae.*

Claim 41 (New): An isolated enzyme which has an activity to deamidate amido groups in a protein by directly acting upon the amido groups without cutting peptide bonds and without cross-linking a protein, wherein said enzyme is obtained from *Flavobacteriaceae.*

Claim 42 (New): A method for producing an enzyme, which comprises culturing a

microorganism in a nutrient medium, thereby allowing said microorganism to produce an enzyme having an activity to deamidate amido groups in protein, and subsequently collecting said enzyme, wherein the microorganism is *Flavobacteriaceae.*

Claim 43 (New): A method for producing an enzyme having an activity to deamidate amido groups in protein, which comprises culturing a microorganism in a nutrient medium, thereby allowing the microorganism to produce an enzyme which has an activity to deamidate amido groups in protein by directly acting upon the groups without causing severing of peptide bond and cross-linking of protein, and subsequently collecting said enzyme, wherein the microorganism is *Flavobacteriaceae.*

Claim 44 (New): A method for producing an enzyme having an activity to deamidate amido groups in protein, which comprises culturing a microorganism in a nutrient medium, thereby allowing the microorganism to produce an enzyme which has an activity to deamidate amido groups in protein by directly acting upon the groups without causing severing of peptide bond and cross-linking of protein, and subsequently collecting said enzyme, wherein the microorganism belonging to the genus selected from the group consisting of *Chryseobacterium, Flavobacterium, Empedobacter, Sphingobacterium, Aureobacteriun* and *Myroides.*

Claim 45 (New): A method for producing an enzyme having an activity to deamidate amido groups in protein, which comprises culturing a microorganism in a nutrient medium, thereby allowing the microorganism to produce an enzyme which has an activity to deamidate amido groups in protein by directly acting upon the groups without causing severing of peptide bond and cross-linking of protein, and subsequently collecting said enzyme, wherein the microorganism

belonging to the genus *Chryseobacterium.*

Claim 46 (New): A method for producing an enzyme having an activity to deamidate amido groups in protein, which comprises culturing a microorganism in a nutrient medium, thereby allowing the microorganism to produce an enzyme which has an activity to deamidate amido groups in protein by directly acting upon the groups without causing severing of peptide bond and cross-linking of protein, and subsequently collecting said enzyme, wherein the microorganism is a strain *Chryseobacterium sp.* No. 9670(FERMBP-7351).

Claim 47 (New): A composition for use in modification of a protein or a peptide, which comprises an isolated enzyme having an activity to deamidate amido groups in protein or peptidc by directly acting upon the groups without causing severing of peptide bond and cross-linking of protein, as the active ingredient, wherein said enzyme is obtained from *Flavobacteriaceae.*